

**APPENDIX B: Amino Acid Sequences**

> RXA00062 (1-1398, translated) 466 residues  
MILSIVLLGY FMILLDTISIV ITGLPAIGSE LGIDPVHLSW VQSSYTLVFG ALLLLGARAG  
DIFGRKKVLY IGLALFAASS LAIALSPNAA VLIGARVVQG AGAIIAPAT LALITEFFPE  
GPARLRATSA YGAVAGIGVA AGLVIGGVFA DLLSWRIGFF INVPIAAVLA YIVHKAIPAT  
FSRPGSLDIF GAITSTAGIA AVLYAIVRSA DYSWTDPFVL ISLVLGIAVF IWFLRHESSE  
KEPLLPLGLF KNRRRNTILA SRFLLVGSVM SFFFFATQLF QDTMGMNALQ AGLAFMPLSL  
LQFASAAAMP RLSRAGVSDS MLTVIGFAIM VIGMAGLAFV PNTMIALILP IVLVGFQGGF  
AFGPMTALAV QGAPKQSGA VSGLVNSLHQ IGGTFGLGVF SSLAVAVIGH DATSEMISDR  
AHFGFLLSTV TLTLATIFAV TLLKRHETRK SSERPTQLVD EKAVTS

> RXA00084 (1-825, translated) 275 residues  
MSTALPDQLK WEYSAFPVQI SQKQRLSPGF MRITVTGDKL RFFGQWGLDQ RIKLIIPSPA  
GNIPDFGILD EPTPPPTTWL PRAKSFPADQ RPILRTYTPS AVRPELCEVD IDIYLHNPSG  
PVSRWAKNCS VDDELIITGP DVRAGETGYG ITYHPTSAID RLCLIGDCAS APAIANIVNQ  
SKVPTTVFLH VDSLEDDVLI ADSSTKLTFE DIDAYKAKVF QWASANAADP SVHFWIAGET  
SMVRFIRKEL INSYRVDSSR ITFLGYWKYG RRTVD

> RXA00109 (1-612, translated) 204 residues  
VASEKNLKLK TLAAAAGVLG VGAMSMLVAP QAAAHDVVVD SNPENGSVVD EFPETIELEF  
SGIPQDLFTT VALSNADSGE VLTSGTPQLE GQHLSYEVPS DVQTGAGNYI LGFQITSSDG  
HATKGSISFE VTGSAETTTE TTAETTTEA ATTDSETTE AETTETADET SGIPAPWNWV  
LSIVAVLVVA SAIVMMIAKN RNQK

> RXA00215 (1-1461, translated) 487 residues  
VSDKKQDLTS SAAGSAAPQT KAYPAMPLPE KQAWPALIAL CIGFFMILLD QTIVAVSTPA  
LOADMGASYN EVIWTSVYL LTFVAVPLLVT GRLGDKYGPK NVYVAGMVIF TVSSLACGLA  
PDMFTLIAR GVQGLGAALL TPQTMATINR IFAFERRGAA LGVWGSTAGL ASLAGPILGG  
VITENWGWQW VFYINVPIGV ISVIAVMKYV PEFPLTRPL DPLSIVLSIV AVFFLVFAFQ  
EGEGAGWAAW VWIMIVAFA LFAWFIYQOS RAEKSGNDPL VPLEIFKFRN FSLGNICIMA  
MGFTVAGTPL PIMLYFQQA GMNAMEAGFM MVPQALMAAV LSPFVGKLVD RSNPGLMAAL  
GFSTVAVSIV LLSVMVIFDT GLVWALVSMT LLGIGNAFVW APNSTSTMRD LPHKFMGAGS  
GVFNTTRQLG SVIGAAAIGA VMQIRLAAGD EGAAFGQALL LAAAVLVIGI VASTMAGKNA  
HPAPVKP

> RXA00289 (1-1176, translated) 392 residues  
MSTTTAPEAR FPVVPLTAMS FAAFVYVTFE MFAVGLIKPM ASDLGVSSESS IGLLMTVYAT  
VVAVVTIPAM LWVSRFNKRT VFLITLAFLA TGIVVQALTV NYGMLAIGRT IAALTHGVFW  
ALVGPMARM SPGHTGRAVG VVSIGSTMAL VVGSPLATWI GELIGWRPAT WILGALTIAA  
VAVLIPTVPS LPPLPDTESE SKEKKSPLWG LISLVIFLLL AVTGVFAAYT YLGLIIAETA  
GDSFVSI GLF AFGALGLIGV TVATRTVDQR MLRGSVHTTT LFVIAAILGQ IAFGLEGTLA  
VVAIFLAVTV FGGAYGALPT LGTTIFLHAG RDHPDTASSI YVVTYQVGIA SGAALGAMAV  
DADWVAGTLW IMAGLSLAST LALALWSRPL LK

> RXA00404 (1-2316, translated) 772 residues  
VALKRPEEKT VKIVTIKQTD NINDDDLVS NATDLPVGK KSPKMSPTAR VGLLVFGVIA  
AVGWGAI AFS RGETINSVWL VLAAGVSYII AFSFYARLIE YKVVKPKDQR ATPAEYVNDG  
KDYVPTDRRV LFGHHFAAIA GAGPLVGPVM AAQMGYLPGT LWIILGVIFA GAVQDYLVW  
VSTRRRGRSL GQMRDEMGT VGGAAGILAT ISIMIIIIAV LALIVVNALA DSPWGVFSIT  
MTIPIALFMG VYLRYLRPGR VTEVSIIGVA LLLLAIVAGG WVADTSWGVE WFTWSKTTLA  
LALIGYGIMA AILPVWLLLA PRDYLSTFMK IGVIGLLAVG ILFARPEVQM PSVTSFALEG  
NGPVFSGSLF PFLFITIACG ALSGFHALIS SGTPKLVEK ESQMRMLGYG GMLMESFVAM  
MALITAVILD RHLYFSMNAP LALTGGDPAT AAEWVNSIGL TGADITPEQL SEAESVGES  
TVISRTGGAP TLAFGMSEIL SGFIGGAGMK AFWYHFAIMF EALFILTVD AGTRVARFMM  
TDTLGNVPGL RRFKDPSTV GNWISTVFC ALWGAILLMG VTDPLGGINV LFPLFGIANQ  
LLAAIALALV LVVVVKGLY KWAIVPAVPL AWDLIVTMTA SWQKIFHSDP AIGYWAQNAN  
FRDAKSQGLT EFGAAKSPEA IDAVIRNTMI QGILSILFAV LVLVVGA AI AVCIKSIRAR  
AAGTPLETTE EPDTESEFFA PTGFLASSRD KEVQAMWDER YPGGAPVSSG GH

> RXA00479 (1-2190, translated) 730 residues

MSTSITTENK KKSPPRLMR IFLPALLILV WLVGAGVGGP YFGKVSEVSS NSQTTYLPES  
 ADATQVQEQL GDFTDSESIPI AIVVMVSDEP LTQQDITQLN EVVAGLSELD IVSDEVSPA  
 PSEDGRAVQV FVPLNPSAEL TESVEKLSET LTQQTPDYVS TYVTGPAGFT ADLSAAFAGI  
 DGLLLAVALA AVLVLIVIVY RSFILPIAVL ATSLFALTVA LLVVWWLAKW DILLLSGQTQ  
 GILFILVIGA ATDYSLLYVA RFREELRVQQ DKGATGKAI RASVEPILAS GSTVIAGLLC  
 LLFSDLKSNS TLGPVASVGI IFAMLSALT LALLFVFGV VAFWPKRPKY EPEKARAKND  
 IPASGIWSKV ADLVEQHPR IIVSTLIVLL LGAAFPVPTLK ADGVSQSDLV LGSSEARDGQ  
 QALGEHFPVG SGSPAYIIVD ETQAAQAADV VLNNDNFETV TVTSADSPSG SAPITADGIV  
 PLGSGTAPGP VVVEGQVLLQ ATLVEAPDSE EAQKAIRSIR QTFADENISA VVGVTATSV  
 DTNDASIHDR NLIPIVLLV ILVILMLLLR SIVAPLLLIV TTVVSFATAL GVAALLFNHV  
 FSFPGADPAV PLYGFVFLVA LGIDYNIFLV TRIREETKTH GTRLGILRGL TVTGGVITSA  
 GVVLAATFAA LYVIPILFLA QIAFIVAAGV LIDTLLVRAF LVPALFYDIG PKIWWPSKLS  
 NQKYQKQPQL

> RXA00497 (1-297, translated) 99 residues  
 VANVNIKPLE DKILVQINEA ETTTASGLVI PDSAKEKPQE ATVIAVGPGR FDDKGNRIPL  
 DIKEDDVVIF SRYGGTEIKF GGVEYLLLSA RDILAIVEK

> RXA00498 (1-1239, translated) 413 residues  
 MAKLIAFDQD AREGILRGVD ALANAVKVTL GPRGRNVVLD KAFGGPLVTN DGVTIARDID  
 LEDPFENLGA QLVKSVAVKT NDIAGDGTIT ATLLAQALIA EGLRNVAAGA NPMELNKGIS  
 AAAEKTLEEL KARATEVSDT KEIANVATVS SRDEVVGEIV AAAMEKVSKD GVVTVESQS  
 IETALEVTEG ISFDKGYLSP YFINDNDTQQ AVLDNPAVLL VRNKISSLPD FLPLLEKVVE  
 SNRPLIIAE DVEGEPLQTL VVNSIRKTIK VVAVKSPYFG DRRKAFMDDL AIVTKATVVD  
 PEVGINLNEA GEEVFGTARR ITVSKDETII VDGAGSAEDV EARRGQIRRE IANTDSTWDR  
 EKAEERLAKL SGGIAVIRVG AATETEVRND KLRVEDAINA ARAAAQEGVI AGG

> RXA00565 (1-993, translated) 331 residues  
 MMLNETTLAV ALPSIMADFD IEANTAQWLL TGFMLTMAVV LPATGWMLER FTTRS VFIFA  
 TVVFLIGTVT AALSPTFAIM LAARVAQAIG TAVIMPLLMT VAMTVVPPER RGAVMGLIAV  
 VMAVGPAALGP SVAGFVLSLS SWHAIFWVMV PLVFVASLIG TLRLTNVSEP KKTPLDVISF  
 LISAVAFGGL VYALSSIGII LEGDRSALVV LAVGIIALVV FVWRQIAMGK QDKALLDLRP  
 LAIREYTIPL VVLLTLFGAL LGVMNTLPLY LQGSMLVTAL VAGLVLLPVG LLEGVLSPFV  
 GRIYDRHGPR GLVIGGMSLV VISLFALSTV D

> RXA00575 (1-483, translated) 161 residues  
 VRDIYELGLE TGHATYETSG PTWDQFSQSK IMDTVMVAVE NNDPDFILGW VSAAPISSRQ  
 VFHGVVEDSI YIHPQGQGRG IGGALLDALI TYCESNGIWS IHSWIFPENL GSAKLHESKG  
 FVKVGTMHQM ARMPYGELEG QWRDCDLWEC LLSVPEQAQS S

> RXA00599 (1-387, translated) 129 residues  
 MKSVLFVCVG NGGKSQMAAA LAQKYASDSV EIHSAGTKPA QGLNQLSVES IAEVGADMSQ  
 GIPKAIDPEL LRTVDRVIL GDDAQVDMPE SAQGALERWS IEEPDAQGME RMRIVRDQID  
 NRVQALLAG

> RXA00600 (1-1098, translated) 366 residues  
 MIEGWMLTTL KEHSTPRAAG SMSFLDRWLA AWIFLAMAAG LLIGKVFPPI GALLSAVEIG  
 GISIPIAIGL IVMMYPPLAK VRYDKTKEIS TDRALMVVSI MLNWIVGPAL MFSLAWFLP  
 DQPELRTGLI IVGLARCIAM VLVWSDLAGC DREATAVLVA INSVFQILMF GVLGWFYLLQI  
 LPSWLGLDTT SVTFVSIVSIV TSVLVFLGIP LVAGVLSRVI GEKTKGRRWY EDTFLPKISP  
 LALIGLLYTI VLLFSLQGE ITAQPWTVAR LALPLLMYFV GMFFISLVVS KLSGLTYERA  
 ASVSFTAAGN NFELAIASV GTFGATSPQA LAGTIGPLIE VPVLVGLVYV MLWLGPKIFK  
 KENAGS

> RXA00605 (1548, translated) 516 residues  
 MSEKSAADQI VDRGMRPKLS GNTTRHNGAP VPSENISATA GPQGNVNLND IHLIEKLAHF  
 NRENVPERIP HAKGHGAFGE LHITEDVSEY TKADLFQPGK VTPLAVRFST VAGEQGSPTD  
 WRDVHGFALR FYTEEGNYDI VGNNTPTFFL RDGMKFPDFI HSQKRLNKNL LRDAQWDF  
 WTRAPESAHQ VTYLMGDRGT PKTSRHQDGF GSHTFQWINA EGKPVVVKYH FKTRQGWDCF  
 TDAEAAKVAG ENADYQREDL YNAIENGDFP IWDVKVQIMP FEDAEYRWN PFDLTKTWSQ  
 KDYPLIPVGY FILNRNPRNF FAQIEQLALD PGNIVPGVGL SPDRMLQARI FAYADQQRYS

IGANYRDLPLV NRPINEVNTY SREGSMQYIF DAEGEPSYSP NRYDKGAGYL DNGTDSSSNH  
TSYGQADDIY VNPDPHGTDL VRAAYVKHQD DDDFIQPGIL YREVLDEGEK ERLADNISNA  
MQGISEATEP RVYDYWNNVD ENLGARVKEL YLQKKA

> RXA00648 (1-1410, translated) 470 residues  
VVTLASAGIT VSLAQTLVIP IIGRLPEIFN TTAANASWII TVTLLVGAVA TPFVGMRLADM  
YGKKKMMMLIS LVPFILGSVI CAVSVDLIPM IIGRGFQGLG SGLIPLGISL MHDLLPREKA  
GSAIALMSSS MGIGGALGLP LAAAIAQFAS WRVLFWFTAL VALTVGAVIW KAIPARPRIV  
RSGGFDFYFGA LGLAMGLIAL LLAVSKGSEW GWSALTIGL FVAALVILVG WGWFFETRQKS  
PLIDLRTTIR ATVLMTNIAS ILIGFTMYGM NLILPQVMQL PVILGYGLGQ SMLQMGIWLI  
PMGLGMMMLIS NAGAAISAAH GPRVTLTIAG VVIAVGYALT ATVLFTIGNR TPGGDADNAL  
ILTTLVLFSV CSLVVGIGIG LAFGSMPALI MGAVPATEKA AANGFNLSMR SLGTTGSSAV  
IGAVLAGMMS GGVPTLGGFM TTLLIIGCCAA LVAAVISYFI PTTTTVVEAK

> RXA00764 (1-1116, translated) 372 residues  
MTLKTSVLAL LLDNVHVLLI ANPESTTQTQ KLFRRVVPAL MALDGVSLA RFTHYGGHAE  
EMVAGLTVDD FDVPIIPAGG GTVNEVINGL LGSAEGDFRN LEDLPAIAVL PTGSANVFAR  
ALGYPTDPYA AADALVELIR KNHTRTITLG TWKGDDQGT WFAVNAGFGI DADVIAVER  
ARSFGFAASP LLYLQVSLRA WVKTQIKPPK ITVEAVDSKG HKLQKEEVPM LLASNTNPWT  
FLGLPLVVTN PQNSFDTGLG LFGLTSVRGF GGVAAMMHLI GVGHGRKLEK LIAKRTIAFD  
DAEKVTLTCD SDQRQVDGE YEGKPTKVVL ESITDAVRVY APKTHPTPI MNWAVHLFKH  
VRDFLRVRTF GI

> RXA00803 (1-603, translated) 201 residues  
MGVSALNMSD MVANKRAQRK VWLAVALSVF TVAWGGNEFT PLLVFYRGEF FFSNLFIDLL  
LVFYAIGVAV GLLAAGPLSD RYGRRAVMLP APLIAILGSA LIASGEETAI LIAIGRVLSG  
ISVGMVMTAG GSWIKELSSS RFEPGVKTSA GAKRASMSLT GGFALGPALA GVMAQWLPQP  
GQLAYVLHII LTLILFPLLI T

> RXA00810 (1-201, translated) 67 residues  
MAQGTVKWFN PEKGFGFIAP SDGSADVVFH YSEIEGNGFR TLEENQLVEF EIGEGAKGLQ  
AQAVRAI

> RXA00829 (1-255, translated) 85 residues  
LDEPTTGLHL ADVKTLDDL DQLVDDGKSV IVIEHHLGVL AHADHIIDVG PGAGSDGGSI  
VFEGSPAELI KTDPTGRHL KAYVD

> RXA00834 (1-1563, translated) 521 residues  
MQKADSHDWI SVHGANENNL KNVSVRIPKR RLTVFTGVSG SGKSSLVFGT IAAESRRILIN  
ETYSTFVQGF MPSPARPVDV HLEGITTAII VDQEQMGANP RSTVGTATDA TAMLRILFSR  
IAEPNAGGPG AYSFNVPSVS ASGAIITVEKG GNTKREKATF KRTGGMCPAC EGMGRASDID  
LKELFDASLS LNDGALTIPG YTPGGWSYRM YSESGLFDA KPIKDFTEEE RHNFLYLEPT  
KMKIAGINMT YEGLIPIRQK SMLSKDREGM QKHIRAFVDR AVTFIPCPAC GGTRLAPHAL  
ESKINGKNIA ELCAMEVRDL AKWIKTVEAP SVAPLLTALT ETLDNFVEIG LGYIQLDRPA  
GTLSGGEAQR TKMIRHLGSA LTDVTYVFDE PTAGLHAYDI ERMNKLKLLDL RDKGNTVLVV  
EHKPETIAIA DHVVDLPGGA GAGGGEIRFE GSVDKLKDS TGTGLHFNDR ASLKESVRAP  
HGALEIRGAD RNNLNNVDVD IPLGVFTAIS GVAGSGKSSL I

> RXA00843 (1-345, translated) 115 residues  
MKVTIFHNPR CSTSRNTLAY LRDKDIEPEI VQYLKDTPTA SELKELFNTL GIPVHDGIRT  
REAETELGL SPETPETELI DAIVAHPRLL QRPIVVTAKG ARIARPKIDV IDSIL

> RXA00858 (1-468, translated) 156 residues  
MEVNLATWLI TIAVIAGFFI FDFYSHVRTP HEPTIKESAW WSLFYVALAC VFGVFLWFAW  
GEPGNPHQHG IEFFTGYVTE KALSVDNLF FALIMGSFKI PRKYQQKVLL IGIALALVFR  
LAFILAGAAV IEAWSDFYI FSIWLIYTAV KAPVHE

> RXA00886 (1-1146, translated) 382 residues  
VARDYYGILG VDRNATESEI KKAYRKLARK YHPDVNPGEE AAEKFREASV AHEVLTDPPDK  
RRIVDMGGDP MEQGGGAGAG GFGGGFGGSG GLGDIFDAFF GGGAGGSRGP RSRVQPGSDT  
LWRTSITLEE AYKGAKKDLT LDTAVLCTKC HGSGSASDKK PVTCTCNGA GEIQEVQSRF

LGNVMTSRPC HTCDGTGEII PDPCTECAAD GRVRARRDIV ANIPAGIQSG MRIRMAGQGE  
 VGAGGGPAGD LYIEVMVRPH AIFTRDGGDL HASIKVPMFD AALGTELDVE SLTGEEVKIT  
 IPAGTQPNV ITLDGEGMPK LRAEGHGNLM AHVDLFVPTD LDDRTRELLE EIRNHRSDNA  
 SVHREGGEES GFFDKLRNKF RK

> RXA00900 (1-852, translated) 284 residues  
 VRGIARAIVP DLERGQKAAH AFALLMIIQG IAPVVAPLIG GVLVGPFGWR GIFWALALVN  
 FAQLLVALLQ IKESKPVEER TAAGLGGLMS NYVFVLKNPQ FLAYVFTLGL SFGAMFSYIS  
 ASPFVLQNM GIPVLLYSII FGVNAFGLIV GGMVNRRLQ RIHPRIMQT VLASFTVLCA  
 LLLIEVLFIN WIPLFLLLLF LIVSHIPMVM ANATALGTEV VRSRAGSGSA ILGFVQFTMG  
 ALVSSLVGLG SDKALTMGIA MTACALLACG CAYLAGRKGI PEMK

> RXA00901 (1-378, translated) 126 residues  
 MGLALLSASS ALATDMLPA MPGIAEDLGT TAPMVQLTSL SFMAGMAIGQ LIIGPLSDQL  
 GRKGLLVAGA VAALVASVVC ALAPSISVLV IARLVQGLGG GACVVLARS CQTLNADKRL  
 RTPHLC

> RXA00981 (1-630, translated) 210 residues  
 MSENLPAPEN LLDAERIQMI KNFRNELTGF MLNYQFGIDE ILTKINILKT EFSQLHEYAP  
 IEHVSSRLKT PESIVKKVIR KGDELSLAAI KDTVFDIAGI RIVCSFLKDA YAIADMLTNQ  
 KDVTVIEAKD YIANPKPNGY KSLHLILQVP VFLSNSVEKV NVEVQIRTIA MDFWASLEHK  
 IYYKFEQEVV QSILDELTSED GKNPRGSEVT

> RXA00993 (1-636, translated) 212 residues  
 MGKGFTGAIL TVMGVKSHIA TTTGKTIVIND RMVTIHFHSE TLLNTEGEVP GDWLRLWFPH  
 ESRPGKLYQR AYTLTNVDAD AGTFDLAFVL HEPLGPASAW ATRCEAGESL EVMRYPGIPF  
 AIPDPAPRGF LFLGDLTSYP AICSILETLD GEIPATAYLI AHDPLDYTFD FPQGEHITAQ  
 WISNEQSFID HIADTDYTFD YTWIGAESSE TR

> RXA00995 (1-741, translated) 247 residues  
 MNPHYLLATV KRVLLQLKAD KRSIALILLA PVALMSLFYY MYSSTPAGTQ LFKTISTVMI  
 AVFPLMLMFL MTSVTMQRER NAGTLERLWT TNIHRVDLIG GYGVAFGIMA VAQSLLMVLV  
 LRYLLGVETE SEWWISTLIA AITGLIGVSL GLLSSAFASST EFQAIQTLPL LILPQFLLCG  
 LLIPRDDLPD VLRWVSNVLP LSYAVDAALE ASRTGIGQQV VVNIAICAAF AVSFLLVAAAL  
 SMPRMTR

> RXA00996 (1-741, translated) 247 residues  
 MSTVTAVQVN GLKVSISSEF SRKKTCTILH DLDFTVETGK ITGLLGPSGS GKTTLMRAIV  
 GVQNFDTLE VFDQPAGAAS LRGKIGYVTO NASVYHDLV IENLKYFGAL AKGTSTPRTP  
 EKILEVLDA DLAQRQVSTL SGGQRGRVSL GCALIASPEL LVMDEPTVGL DPITRQALWE  
 EFTTIKAGA GVVISSHVLE EAARCDNLIL LRDGRIIWRG TPTRLLEDTG KSSYEDAFLA  
 AIDGVR

> RXA01010 (1-771, translated) 257 residues  
 MKKLQMPAIL VGGFVGPFTE QALSVVLPEF ADTFDISVSQ AALTMTAYLL PFATMMLFSG  
 RITRKIHPHK VVQAAYIVTL PLALLLVTP SWGLFMAAYA TIGIANAFTT PVLQIMLREL  
 VPPRSLGKAL GTYAAMQSLG MLSAPLIAGV SSVVSWRLTF LVTAASLFI LVARLPVVP  
 PSALKQNVSG KVQWGPTIIH MVSGFVVIG IIGIGFMTSL HVGEQFGLNT AARGLVVMCG  
 GRAAFFASRK IGDLDK

> RXA01051 (1-609, translated) 203 residues  
 MSTIHASGIQ APQVPHGSHH APPQKDESVM KSFNASSLLF AFSFGVYLVL LVMMTLLKSR  
 LSLGGLWNTE AHQYRSIDLE LFNGFADPPI WWGPWTNTFG NIALFMPFGF FLYKMLRRFN  
 HRFPFVETIL FASVTSLSIE VLQWVFAIGY SDVDDLLFNT IGGLIGASVA ALVSLKSSKV  
 VSGIIMGSSL SVMAMMYSS FIA

> RXA01052 (1-309, translated) 103 residues  
 MDTKLGAELG TEFDLIVVGF GKAGKTIAMK RSAAGDKVAL IEQSPQMYGG TCINVGCIPT  
 KKLLFETATG KDFPDVAVAR DQLIGKLNK NLAMATDKGV TRH

> RXA01053 (1-420, translated) 140 residues

062300 062300

VLYAPTIVIN TGSTPVIPNV PGTDNPHVFD STGIQHISPL PKHLAIIGGG FIGLEFATLF  
SGQGSKVTII DRGELPLKNF DREVAELAKT DLEARGITEL NNAELTGFSG DLTIALKDHD  
LLADAALFAS ADARHRRARP

> RXA01054 (1-489, translated) 163 residues  
VLVDAHLRTN IDGIFAVGDV NGGPQFTYVS YDDHRIVLDQ LAGTGKKSIA HRLIPTTTFI  
EPPLSTIGDN TEGENVVVKK ALIADMPIVP RPEIINQPHG MVKFFVVKQS DALLGATLYC  
ADSQELINTV ALAMRHGVT A SELGDGIYTH PATSEIFNQL LGS

> RXA01150 (1-891, translated) 297 residues  
PAASLPALVA VRFVHGFSYS LASTAVMALV QSVIPASRRA EGTGYFALGS TLATAFGPAI  
ALFVIDDFNY NTLFWITTAT SVFGLILTIVL IRKPEFIKNA EHGRVKPVWS IKTVVHPSVM  
LIGFFMLAVG LAYAGVITFL NGFAQDTGLT AGAGLFFIAY AVAMLVMRFF LGRIQDKHGD  
NPVIYFGLIS FALALGLMAL ATEDWHIVLA GALTGLGYGT IMPAAQAIIV DSV PSTQVGS  
GISTLFLFTD IGIGLGPILL GGLVAATGYN VMYAALAAVI VVAGVLYLVA LGRKASH

> RXA01180 (1-762, translated) 254 residues  
MTPTLASMIG LAVGIDYALF IVSRFRNELI SQTGANDLEP KELAERLRMT PLAARAHAMG  
MAVGTAGSAV VFAGTTVLIA LVALSIINIP FLTVMIAAAA ITVAIAVLVA LSFLPALLGL  
LGTRIFAARV PGPKVPDPED EKPTMGLKWV RLVKMPVAY LLVGVLVLLGA IAI PATNMRL  
AMPTDGTSTL GTAPRTGYDM TADAFGPGRN APMIALIDAT DVPEERPLV FGQAVEQFLN  
TDGVKNAQIT QTTE

> RXA01217 (1-600, translated) 200 residues  
MAKYQTIEAA VRSEFGKGS RRARVAGQIP AVVYGADVES NLHVTIDHRT FAALVRQEGV  
NAVLELDIEG QKQLTMIKHI DQNVLTFFHD HLDLLAIKRG EKVEVDVPVI VEGEPAPGTM  
WVQDADTIKV EADVLSIPEE FTVSIEGLEL GAQITAADIK LEGDTTLVED PETLIVNIVL  
PAVEEEDTEE DEAAEEAATE

> RXA01314 (1-741, translated) 247 residues  
MTSQVKPDDE RPYTTISKSG APSAHTSAPY GAAATEEAVE EKTGRVGF I AALMLAMLL  
SSLGQTIFGS ALPTIVGELG GVNHMTWVIT AFLLGQTISL PIFGKLGDQF GRKYLFMFAI  
ALFVVGSIIG ALAQNMTTLI VARALQGIAG GGLMILSQAI TADVTTARER AKYMGIMGSV  
FGLSSILGPL LGGWFTDGP WRWGLWLNVP IGIIALVAIA VLLKLPARER GKVSVDWLGS  
IFMAIAT

> RXA01319 (1-1194, translated) 398 residues  
MTHETSVPGP ADAQVAGDTK LRGKRAKKEK TPSSMTPEQQ KKVWVLSAL MVAMMMASLD  
QMIFGTALPT IVGELGGVDH MMWVITAYLL AETIMLP IY KLGDLVGRKG LFIGALGIFL  
IGSVIGGLAG NMTWLIVGRA VQGIGGGGLM ILSQAI IADV VPARERGRYM GVMGGVFGLS  
AVLGPLLGGW FTEGPGWRWA FWMNIPLGII AIGVAIYFLD IPKSKVKFRW DYLGTFMIV  
AATSLILFTT WGGSQYEWSD PIIIGLIIT IVAAALLVVV ELRAKDPLVP MSFFQNRNFT  
LTTIAGLILG IAMFGIIGYL PTYLQMVHGT NATEAGYMLI PMMVGMGMS IWTGIRISNT  
GKYKLFPPIG MVVTFVALIF FARMEVSTTL WQIGIYLF

> RXA01320 (1-780, translated) 260 residues  
VDPLVPMGLF SNRNFVLTAV AGIGVGLFMM GTIAYMPTYL QMVHGLNPTQ AGLMLIPMMI  
GLIGTSTVVG NIVSKTGKYK WYPFIGMLIM VLALVLLSTL TPSASLALIG LYFFVFGFGL  
GCAMQILVLI VQNSFPITMV GTATGSNNFF RQIGGAVGSA LIGGLFISNL SDRFTENVPA  
AVASMGEEGA QYASAMSDFS GASNLTPHLV ESLPQALREA IQLSYNDALT PIFLALTPIA  
VVAAILLFFI REDHLKETHE

> RXA01345 (1-1167, translated) 389 residues  
MRFGDLGTT RTIAAAVDRG NYPIVTVEDS LGDTHDFIPS VVALKADRIV AGWDAIEVGQ  
DHPSFVRSFK RLLSEPNVTE ATPVYLG DHV HPLGAVLEAF AENVVTALRA FQTQLGDTSP  
IEVVIGVPAN SHSAQRLLTM SAFSATGITV VGLVNEPSAA AFEYTHR HAR TLNSKRQAIV  
VYDLGGGTFD SSLIRIDGTH HEVSSIGIS RLGDDDFDEI LLQCALKAAG RQHDAFGKRA  
KNTLLDES RN AKEALVPQSR RLVLEIGDDD ITVPVNKFYE AATPLVEKSL SIMEPLIGVD  
DLKDSDIAGI YLVGGGSSLP LVSRLLRER GRRVHRSPFP SGSTAVGLAI AADPSSGFHL  
RDRVARGIGV FREHDSGRAV SFDPLIAPD

09603208-062300

> RXA01407 (1-891, translated) 297 residues  
 LQDTIGCRWI FLLNVPLGII AIMAGLFIQP KNTAVNVKRF DRPGFLGAML VMVAQAVIAE  
 LICSRSPAAL TICACLVLSA AVVCGFVVRW LRVPGRLFDL SIMRIPGFRV GNSSGSIYRL  
 VITAAPFMFT LLFQVAFGWS ATLAGAMVVA LFAGNVAIKP FTTPIIKRWN FKPVLVFSNA  
 AGALVLATFL FVRADTPLVL IVLLLFVSGA LRSIGFSAYN TLQFVDISPE QTSNANVLSA  
 TLHQLGMSLG IAVAVIAMSL APTANWAFPL AAALFLIPLI GALSLPRDGG ARAFSSS

> RXA01408 (1-201, translated) 67 residues  
 MRNDRSFSVP IALLAAGALF LEILDGTILT TAVPAIARDF GIDAVDVSIA LVAYLAAAAA  
 GIPLQGG

> RXA01524 (1-1443, translated) 481 residues  
 MDSQINTQTS PAAAKLPREV VVVLISILVVS AMIMILNETI LSVALPSIME DFSVPETTAQ  
 WLTTGFMLTM AVVIPTTGYL LDRFSTKTIF VTALLFFTVG TLTAALAPTF AVLLGARIVQ  
 AVGTALVMPL LMTVTLTVPV AERRGSMGMI ISIVISVAPA LGPTLSGVIL NSLTWHWLFW  
 MMLPIVVIAL VIGFFLIKNI GETKITPLDV LSVILSVFAF GGLVYGFSSF GAILEGEGTV  
 GIFAIVVGAI ALLIFALRQH QLKGQDKALM DLRAFKVRNF SFSLTITILLA FGAMLGTMV  
 LPIYLQTSLG VTALVTGLVV MPGGLLQGLI SPFIGRFYDK VGPRPLLIPG AIALAIAASS  
 MTFLNENSPV WMVVVMHVVF SIGMCLMMTP LMTTALGALP KHLYGHGSAI LNTFQQLAGA  
 AGTAIMIAAL SFGTSIAASS GSAHAEAVAA GTKVAFIAGA IIAVIALVVS LFTVRVEEEA  
 H

> RXA01578 (1-1395, translated) 465 residues  
 MIALLVAVFA FQLNASMLAP ALATMETELN ATAAQIGMTQ TAFFTAALF SLFLPRWGD  
 IGRRKVLVGM MIVTGIGCVV AAFAPNVTIL FLGRLIQVVA GPTVPLCLII LRQQTNEKQ  
 YALLLGIVTS VNGGIGGVDA LAGGWLAETL GFRSIFWVMA AFCAVAALAL PFSVKESTAE  
 ETPKMDWLGV LPLAVSIGSL LMAFNEAGKL GAANWILVVV LFIIGIAGVI FFYNIKRVK  
 HPLVSVEYLG QRRTWALLS TLLTMTGVFA VMNGLLPNLA QDAANGAGMS ASVSVSWTTLT  
 PYALAGLVFG PIAGILAGKF GYKIVLQIGI AATIIGVAGA TFLVGSTSHL AYLGISIFVG  
 ITYAGIANIM LNGLGIVLSP ANNQGYLPGM NAGAFNLGAG ISFAILFAVS TAFSDNGGGY  
 AAGMWAGVII LVLAFCLSL IPRPESITDT VAAKVQAEAA AQAAS

> RXA01616 (1-1482, translated) 494 residues  
 MTSETLQAQA PTKTQRWAFI AVISGGLFLI GVDNSILYTA LPLLREQLAA SETQALWIIN  
 AYPLLMAGLR LGAGTLGDKN GHRRMFLMGL SIFGIALGA AFAPTAWALV AARAFGLGIGA  
 ATMMPATLAL IRTTFEDERE RNTAIGIWGS VAILGAAAGP IIGGALLEFF WWSVFLIN  
 PVAVIALIAT LFVAPANIAN PSKHWDLFSS FYALLTLAGL IITIKESVNT ARHMPLLLGA  
 VIMLIIGAVL FSSRQKKIEE PLLDLSLFRN RLFLGGVVAA GMAMFTVSGL EMTTSQRFQL  
 SVGFPLEAG LLMIPAALGS FPMSIIGGAN LHRWGFKPLI SGGFAATAVG IALCIWGATH  
 TDGLPFFIAG LFFMGAGAGS VMSVSSTAI I GSAPVRKAGM ASSIEEVSYE FGTLLSVAIL  
 GSLFPPFFYSL HAPAEVADNF SAGVHHAIDG DAARASLDTA YINVLIILV CAVAAALISS  
 YLFRGNPKGA NNAH

> RXA01666 (1-1377, translated) 459 residues  
 VSTFHVKLIN TMISNVTGTF LFFAVVFWMY LSTGNVALTG IVSGIYMGLI AVCSIFFGT  
 VDHNRKKSVM LFSSVTTLVF YCLSALVWF WLEEDGLSIG NTALWVFSF ILIGSIVEHM  
 RNIALSTVVT LLVPEAERDK ANGLVGAVQG VGFLVTSVIA GSAIGFLGME ITLWICLGLS  
 LVALLHLLPI RVDEPEIITQ EDAQPTVSDD SVPTPTSOLA IVSKGIDLKG SMKIIILSVPG  
 LLALVLFASF NNLIGGVYSA LMDPYGLELF SPQLWGLLLG LTLGFGIVGG AVISKTGLGK  
 NPVRTLLLVN VGVAFVGMLF AIREWWLYI LGIFIFMAIT PAEEAAEQTI LQRVVPFRQQ  
 GRVFGLAMAV EMAANPLSTV IVAILAEAYL IPWMAGPGAD TIWGVILGEG KARGMALMFL  
 ASGAIMLVVV LLAFMSRSYR KLSQYYATTS QDIAGAAEK

> RXA01674 (1-894, translated) 298 residues  
 MDNGWPNLQT LALFVAIVEE GSLGAGARKV GMAQPNASRA IAELEADMKA ELLVRHPRGS  
 HPTAAGLALV EHSRDLQSV QEFTEWVTEG RTEQPLKLHV GASMTIAEAL LPAWVADMRT  
 RFPACRVDS VMNSSQVIEA VQKHLQLGF IETPHVPVRL HARVVQEDKL IVVISPNHEW  
 ANRTGRISLR ELSETPLIVR EVGSGTREAL QELLADYDMA EPIQVLNSNA AVRVVVEAGA  
 GPAVLGELAL RDHLALGRLL SVPFEGSGVT RPLTAVWSGP RRLPILAGEL VSIASNHI

> RXA01873 (1-1092, translated) 364 residues



VSVAEEGKLF TPTFVMGWFA NLFQFLVFYF LITTMALYAI KEFQASEVEA GFASSSIVIG  
 AVFSRFFSGY IIDRFGRRKI VLISVLVTTI ACALYLPYES LPLLYANRFL HGVGYAFAAT  
 AIMAMVQELI PASRRSEGTG YLALGTTVSA ALGPALALFV LGTFDYDMLF IVVLATSVIS  
 LIAVVFMYFK TSDPEPSGEP AKFSFKSIMN PKIIPIGIFI LLICFAYSGV IAYINAFAGE  
 RDLITGAGLF FIAYAVSMFV MRSFLGKLQD RRGDNVVIYF GLFFFVISLT ILSFATSNWH  
 VV

> RXA02159 (1-513, translated) 171 residues  
 MSLGSTPSTP ENLNPVTRTA RQALILQILD KQKVTSQVQL SELLLDEGID ITQATLSRDL  
 DELGARKVRP DGGRAYAVG PVDSIAREDL RGPSEKLRRM LDELLVSTDH SGNIAMLRTP  
 PGAAQYLASF IDRVGLKEVV GTIAGDDTVF VLARDPLTGT ELGELLSGRT T

> RXA02184 (1-381, translated) 127 residues  
 VPVGTVKWYD AERGFVFVSN PGGEDCFVGK QVLPKGVTEL HKGQRIDFDF AAGRKGPPAL  
 RIKILETPRR RPQHKYKPEE LNGMISDLIT LLESGVQPGL AKGQYPEHKA GAQVAEILRV  
 VAKELES

> RXA02200 (1-1110, translated) 370 residues  
 MTNSTQTRAK PARISFLDKY IPLWIILAMA FGLFLGRSVS GLSGFLGAME VGGISLPIAL  
 GLLVMMPPL AKVRYDKTKQ IATDKHLMGV SLILNWVVG ALMFALAWLF LPDQPELRTG  
 LIIVGLARCI AMVLVWSDMS CGDREATAVL VAINSVFQVA MFGALGWFLY QVLPWSWGLP  
 TTTAQFSFWS IVTSVLVFLG IPLLAVGFSR IIGEKIKGRE WYEQKFLPAI SPFALIGLLY  
 TIVLLFSLQG DQIVSQPWAV VRLAIPLVII FVGMFFISLI ASKLSGMNYA KSASVSFTAA  
 GNNFELAIIV SIGTFGATSA QAMAGTIGPL IEIPVLVGLV YAMWLGLPKL FPNPTLPLSS  
 ARSTSQIINS

> RXA02201 (1-363, translated) 121 residues  
 MAAALAKKHA GDALKVYSAG TKPGTKLNQQ SLDSIAEVGA DMSQGFPGKI DQELIKRVDR  
 VVILGAEACL EMPIDANGIL QRWVTDEPSE RGIEGMERM LVRDDIDARV QNLVAELTON  
 A

> RXA02202 (1-639, translated) 213 residues  
 MTGQAAPNLH TNILNRIANE LALTYQGVFS AETINRYIFE SYVSLARTAK IHTHLPILAE  
 GFAKDRHAL AVAEGKVAS VPQVLFICVH NAGRSQIASA LLSHYAGSSV EVRSAGSLPA  
 SEIHPLVLEI LSERGVNISD AFPPKPLTDDV IRASDYVITM GCGDVCPMPY GKHYLDWELA  
 DPSDEGEDKI QEIIIEIDGR IRELWKSQIL SQN

> RXA02205 (1-879, translated) 293 residues  
 VNEEITLLAA AADPAATENI GWVQTIVLSI VQGLTEFLPI SSSGHLRIIS ELFWGADAGA  
 SFTAVVQLGT EAAVLVFFAK EIWQIITGWF AGVFNKERRG FEYRMGMWII VATIPVVILG  
 VLGKDLIREA LRNMWITASV LILFSLVFIL AEKMGKKERD YDKLTMKDAI IMGLAQCLAL  
 IPGVSRSGGT ISAGLFLGLK REVATKFSFL LAIPAVLGS LYSLPDAFAP SSGQAASGLQ  
 LTVGTLVAFV VGYISIAWLM KFCVANHSFSW FAAYRIPAGL LVMLLLALGM LNP

> RXA02273 (1-945, translated) 315 residues  
 MSYTSFKGDD KALIGIVLSV LTFWLFAQST LNIGPDMATD LGMSDGTMINI AVVAAALFCG  
 TFIVAAGGIA DVFGVRVIMM IGNILNIGS LLIATATTSL ATQMVITGRV LQGLAAAAIM  
 SASLALVKTY WLGTDRQRAV SIWSIGSWG TGFALFAGL VVASPFGWRG IFALCAIVSI  
 VAIALTRHIP ESRPAQSIGM HLDWSGIIVL ALSVLSLELF ITQGESLGWT HWMWTWLLAV  
 SLTFLAVFVF IERIASWPVL DFNLFKDHAF SGATITNFIM SATGGVVAVV MWVQQMGWGV  
 SPTISGLTSI GFAAF

> RXA02282 (1-336, translated) 112 residues  
 MQESSRDNFQ VDLGGVVDLL SRHIYSGPRV YVRELLQNAV DACTARSEQG EEGYEPSIRI  
 RPKTKDRATF SLVDNGTGLT AQEARELLAT VGRTSKRDEF GLQREGRLGQ FG

> RXA02305 (1-852, translated) 284 residues  
 MPAFEAMPGM PYWIDLSTSD IAKSAHFYEN VLGWEIEEVN DGYRMARLQG LPVAGLIDQR  
 GESSIPDTWI TYFLSYDLDA TAKKIAELGG RILAEPTDVH LGRMILAVDT AGALFGVIEP  
 GSEESFVAAG EPGTSVWHEL TTVSKYSEAI DFYGELFTWT TSEMASEDD SFRYTTALAD  
 GSAFAGIFDA KGHFPPQVPS FWQSYLGVNL ADDAAAKAKE FGGDVIRKPW DSEFGRMVLI

09603208 062300



SDSTGATITL CEVEEYVEEA AEGDDLFDID LSAFEEQFRK QEGQ

> RXA02431 (1-1191, translated) 397 residues  
 VVVTPRHIVY SAASRRVFQI VEKRAIVER LSIDEQFMPEP EALVGATPEE VKQWAEELRA  
 EIKEVTGLPS SVGAGSGKQI AKIGSGEAKP DGVFVVPVDK QHDLDDPLPV GALWGVGPVT  
 GSKLASMGEV TIGDLAALTQ KEVEISLGAT IGISLWNLAR GIDDRPVEPR AEAKQISQEH  
 TYEKDLLTRQ QVDAAIIRSA EGAHRRLLKD GRGARTVSVK LRMADFRIES RSYTLSYATD  
 DYATLEATAF RLARYPGEVG PIRLVGVVSFS GLEESRQDIL FPELDQQIIV PPAPDTDYEV  
 GVQSSSSSES TQVEAPQDVA LSMWCATQDV YHPEYGHGWV QGAGHGVVSV RFETRSTTKG  
 RTKSFSMDDP DLTPADPLDS LDWADWFAEN GETGDDE

> RXA02446 (1-435, translated) 145 residues  
 MAIESIAYTS EALSTGSGRL GHVRSTDGAL EFEMTPPKAL GSGEGGTNPE QLFVAGYAAC  
 FHSAMHSVAR SRKITLEDTA VGARVSIGPN GAGGFEIAVE LEVSIPQLPQ AEAQELADAA  
 HQVCPYSNAT RGNISVTVSV IDEEA

> RXA02541 (1-1185, translated) 395 residues  
 VNNSEWANKN YYADLVGSSS ASEDEIKKAY RKLARENHPD KNPGDKAAED RFFKAAEAYD  
 VLGDDKKRKE YDELKALLAS GGIRGGFGSG GAGFPGGFRT STGGFDTSDL FGGGQGGGFS  
 TDGGLGDIFG GLFNRGAGSH QSARPTRGAD VQTEITLSFV EAAKGTTIPV ELTGDAPCNT  
 CHGSGSKSGH PAKCGTCDGT GFTSENKGAF GFSAPCATCG GTGEIITDPC DNCHGRGTVR  
 KRSRITVRIP TGVEDGQKVR LAGQGEAGPN GKPAGDLFVK VHVKKDDVFT RDGSNILITI  
 PVSFSELALG GAISVPTLNK PVKLKLPAGT PDGRTLVRG RGIEARDSTG DLLLTVQVSV  
 PKNLDDNAAE ALRAYAEAET NSGFDPANW AGQNR

> RXA02542 (1-654, translated) 218 residues  
 MTPPNGMPDN PGDPENTDPE ATSADRAEQA AEEAAARQAE ESPFGQASEE EISPELEAEI  
 NDLLSDVDPD LDGDGEVSAV ETQLAERTED LQRTVAEYAN YRRRTERERQ GIIDTARAGV  
 VTQLPLLD LDLAEQHGD LDNEGLKSLSD KLINILGGLK VESFGEIGEA FDPEIHEAVQ  
 DLSQGDVKVL GTVLRKGYRL GDRVIRTAMV LIGDPEES

> RXA02543 (1-1854, translated) 618 residues  
 MGRAVGIDLG TTNSVVSLE GGEPVVIANA EGSRTTPSVV AFAKNGEVLV GQSAKNQAVT  
 NVDRTIRSVK RHIGTDWSVA IDDKNYTSQE ISARTLMKLLK RDAEAYLGED VTDVITVPA  
 YFEDSQRQAT KEAGQIAGLN VLRIVNEPTA AALAYGLEKG EQEQITLVFD LGGGTDFVSL  
 LEIGDGVVEV RATSGDNELG GDDWDQRIVD WLVEKFQSSN GIDLTCKDKMA LQRLREAAEK  
 AKIELSSQS ANINLPYITV DADKNPLFLD ETLRAEFQR ITQDLLARTK TPFNQVVKDA  
 GVSVEIDHV VLVGGSTRMP AVTELVKELT GGREPKNKGVN PDEVVAVGAA LQAGVLRGEV  
 KDVLLLDVTP LSLGIETKGG VMTKLIERT TIPTKRSETF TTAEDNQPSV QIQVFQGERE  
 IATANKLLGS FELGGIAPAP RGVPQIEVTF DIDANGIVHV TAKDKGTGKE NTITIQDGSG  
 LSQDEIDRMI KDAEAHADED KKRREEQEVN NNAESLVYQT RKFVEENSEK VSEDLKAKVE  
 EAAKGVEEAL KGEDLEAIKA AVEKLNTESQ EMGXIXEAD AXAGATQADA GAEGAADDNV  
 VDAEVVEDDA ADNGEDKK

> RXA02586 (1-270, translated) 90 residues  
 MHLLRDDNWW APGFVKKAYT VMGHGSEVEE APRPTTRRLN DDEEVTVHEA VVAGDTVASR  
 GGLSTQENRD LVSFVELKAR LEKRRLEDLD

> RXA02587 (1-2091, translated) 697 residues  
 VFSKWGHFAY RFRRIVPLVV IAAILALFVI FGTKLGD RMS QEGWDDPGSS STAAARIELE  
 TFGRDNDGDV VLLFTAPEGT SFDDAEVFSS ISGYLDGLIE NNPDEVSHIN SYFDTRNQNL  
 LSKDGTQTF ALGLKGDGEQ TLKDFREIED QLHPDNLGAG VTTEVAGATA VADALDEGMA  
 GDISRAEVFA LPFVAILLI VFGSVVAAAM PLIVGILSIL GSLGILAILA GFFQVNVFAQ  
 SVVTLGLGL AIDYGLFMVS RFREEMDKGT PVEQAVATT ATAGKTVVFS AAMVAVALSG  
 LFVFPQAFK SVAFGAISAV GLAALMSVTV LPSLFSMLGK NIDKWSLRRT ARTARRLEDT  
 IWYRVPWAM RHAKAVTVGV VLLLLALTVP LTGVKFGGIN ETYLPPANDT RVAQERFDEA  
 FPAFRTEPVK LVVTGADNNQ LIDIYVQANE VEGLTDRFTA GATTDDGTTV LSTGIQDRSL  
 NEQVVEQLRA ISVPEGVEVQ IGGTPAMEIE SIEALFEKLL WMALYIVLAT FILMALVFGS  
 VILPAKAIIM TILMGATLG ILTLMFVDGV GASALNFSPG PLMSPLVLI MAIYGLSTD  
 YEVFLVSRMV EARDKGESTD DAIRYGTHT GSITAAALI MIVVCGAFGF SEIVMMKYIA  
 FGMIAALILD ATIIRMLLVP RRDAPASRRQ LVGTRLR



VISAWLLILAIVGGALTMQKGFNSFTIEDTPSIDATVSLVENFPDQTNPVTAAGVNVV  
FQSPEGTTLDDPQMMTAMDAVVDYIEDNLPDFGGGERFGNPVEVSPALEMVIEQMTSMG  
LPEETAAKDAANLAVLSEDKTIGYTSFNIDVEAAEYVEQKHRDVINEAMQIGEDLGVRVE  
AGGPAFGDPIQIETTSEIIGIGIAFIVLIFTFGSLIAAGLPLITAVIGVGIGALAIVLAT  
AFTDLNNVTPVLAVMIGLAVGIDYALFILSRYAEYKRMPRADAAGMAVGTAGSAVVFAG  
ATVIALVALIADIGFLTAMGISAFTVVFVAVLIALTFIPALLGVFGGHAFKGIPIGIG  
GNPTPKQTWEQALNRRSKGRSWVKLVQKAPGLVVAVVVLGLGALTIPAMNLQLSLPSDST  
SNIDTTQRQSADLMAEGFGAGVNAPFLVIVDTHEVNADSTALQPLIEAQEPEEGEFDREQ  
AARFATYMYVTQTYNSNIDVKNAQIISVNDFTAAQILVTPYTGPADKETPELMHVLRAQ  
EAQIEDVTGTELGTGTGFTAVQLDITEQLEDAMPVYLAVVGLAIFLLILVFRSLVPLVA  
GLGFLLSVGAAFGATVLVWQEGFGGFVNTPGPLISFMPIFLIGVTFGLAMDYQVFLVTRM  
REHYTHHNGKGQPGSKYTPVEQSVIEGFTQGSRVVTAALIMIAVFVAFIDQPLPFIKIF  
GFALGAGVFFDAFFIRMGLVPASMFLMGKATWMPKWLDRILPSLDIEGTALEKEWEEKQ  
AAR

>RXN00493 TRANSLATE of: rxn00493.seq check: 4601 from: 1 to: 1614  
MAKLIAFDQDAREGILRGVDALANAVKVTGLGPRGRNVVLDKAFGGPLVTNDGVTIARDID  
LEDPFENLGAQLVKSVAVKTNDIAGDGTATLLAQALIAEGLRNVAAGANPMELNKGIS  
AAAEKTLLEELKARATEVSDTKEIANVATVSSRDEVVGEIVAAAMEKVGKDGVTVEESQS  
IETALEVTEGISFDKGYLSPYFINDNDTQQAVLDNPAVLLVRNKISSLPDFLPLEKVVE  
SNRPLLI AEDVEGEPLQTLVVNSIRKTIKVAVKSPYFGDRRKAFMDDLAIIVTKATVVD  
PEVGINLNEAGEEVFGTARRITVSKDETIIVDGAGSAEDVEARRGQIRREIANTDSTWDR  
EKAERLAKLSGGIAVIRVGAATETEVDNRKLRVEDAINAARAAAQEGVIAGGGSALVQI  
AETLKAYAEFEFGDQKVGVRALATALGKPAYWIASNAGLDGSSVVVARTAAALPNGEFNA  
TLEYGNLINDGVDPVKVTHSAVVNATSVARMVLTTEASVVEKPAEEAADAHAGHHH

>RXN00535 TRANSLATE of: rxn00535.seq check: 586 from: 1 to: 717  
MWWAGMSTAMLAYFLQTVALGFGTLLVVQPVLVLSLMTPLSARFNGYRLRRTIEFWAT  
LLTVAVGIMIVLGRPLPGNPHPLDRWIPVLLVGVAVMGGMWLLAEYVLKKDKALILGLV  
TGALFGYVAVMSKAAYDLFVHQGITGLILNWEYGLILTALLGTIVQQYSFNAGELQKSL  
PAMTIAEPIVAFSLGYLVLGEKFQVVDWEWIAMGIALLMIVSTIALSRTSTMPAGSKR

>RXN00575 TRANSLATE of: rxn00575.seq check: 5920 from: 1 to: 537  
MVERDFTIRPIREGDFPQVRDIYELGLETGHATYETSGPTWDQFSQSKIMDTVMVAVERN  
DPDFILGWVSAAPISSRQVFHGVVEDSIYIHPQGQGRGIGGALLDALITYCESNGIWSIH  
SWIFPENLGSAKLHESKGFVKVGTMTMQMARMPYGEQWRDCDLWECLLSVPEQAQSS

>RXN00786 TRANSLATE of: rxn00786.seq check: 1529 from: 1 to: 975  
MSSPVISPETKTGKILLAAPRGYAGVDRAVETVERALEEYGAPIYVRKEIVHNRVVD  
TLAEKGAI FVNEASEAPEGANMVFSAHGVSPMVHEEAAKNIAIDAACPLVTKVHKEVQ  
RFDKQGFHILFIGHEGHEVEGTMGHSVEKTHLVDGVAGIATLPEFLNDEPNLIWLSQTT  
LSVDETMEIVRELKVKFPQLQDPPSDDICYATQNRQVAVKAIAERCELMIVVGSNSNS  
VRLVEVAKQNGADNAYLVYAREIDPAWFEGVETIGISSGASVPEILVQGVIERLAIEFGY  
DDVEEVTSAAEKIVFALPRVLRHKN

>RXN00788 TRANSLATE of: rxn00788.seq check: 4194 from: 1 to: 225  
MASSINIGVFNLGNAVAWLAGATITTSGLTSAGLVGGLMTSLGLVLAIVAVVLRKAQ  
GTQATISVVEHQPAQ

>RXN00803 TRANSLATE of: rxn00803.seq check: 768 from: 1 to: 1230  
MGVSALNMSDMVANKRAQRKVWLAVALSVFTVAWGGNEFTPLLVFYRGEFFSNLFIDLL  
LVFYAIGVAVGLLAAGPLSDRYGRRVAVMLPAPLIAILGSALIASGEETAILIAIGRVLSG  
ISVGMVMTAGGSWIKELSSSRFEPGVKTSAGAKRASMSLTGGFALGPALAGVMAQWLPLP  
GQLAYVLHIILTLLIFLLITAPETRQSAHLKTKGSFWSVDLVPSALDKRFLFVVAPIGP  
WVFGAAFTAYAVLPSQLRDMVSAPVAYSALIALVTLGSGFGIQQFGPQIMGTSKTRGPIL

AMFVTVIGMIGAVIVVMNPHPWALVGCMAIGLSYGLCMFMGLAETQNIAPPIDMAGLTG  
IFYCLTYVGMVFPALMTWLNQWLSYPFMLGFGAVMATICLIIVSFSARRF

>RXN00829 TRANSLATE of: rxn00829.seq check: 7202 from: 1 to: 2340  
MQKADSHDWISVHGANNLKNVSVRIKRRRLTVFTGVSGSGKSSLVFGTIAAESRRLIN  
ETYSTFVQGFMPMARPDVDHLEGITTAIIVDQEQMGANPRSTVGTATDATAMLRILFSR  
IAEPNAGGPGAYSFNVPSVSASGAITVEKGGNTKREKATFKRTGGMCPACEGMGRASDID  
LKELFDASLSLNDGALTIPGYTPGGWSYRMYSESGLFDAAKPIKDFTEEERHNFLYLEPT  
KMKIAGINMTYEGLIPRIQKSMLSKDREGMQKHIRAFVDRVTFIPCPACGGTRLAPHAL  
ESKINGKNIAELCAMEVRDLAKWIKTVEAPSVAPLLTALTETLDNFVEIGLGYIQLDRPA  
GTLSSGGEAQRTKMIRHLGSALTDTVYVFDEPTAGLHAYDIERMNKLLLDLRDKGNTVLVV  
EHKPETIAIADHVVDLPGGAGAGGGEIRFEGSVDKLKDSDTVTGLHFNDRASLKESVRAP  
HGALEIRGADRNNLNNVDVDIPLGVFTAISGVAGSGKSSLIHEIPRDESVVVFDQTAIHG  
SNRSNPATYTGMLDSIRKAFKANDVKPALFSPNSEGACPNCKGAGSVYVDLGMAGVSS  
PCEVCEGKRFDSEVLDYHFGGKDIADVGLLSAANAYEFFAAKDSKILPAAKIAKRLVDVG  
LGYITLQPLTTLGGGERQRLKLATHMADKATTFILDEPTTGLHLADVKTLLDLFDQLVD  
DGKSVIVIEHHLGVLAHADHIIIDVGPAGSDGGSIVFEGSPAELIKTDTPTGRHLKAYVD

>RXN00833 TRANSLATE of: rxn00833.seq check: 7757 from: 1 to: 495  
MAKTHFQNETATSGELPQVGDNLAEFNLVNTTELGEVSSKDFQGRKLVNIFPSVDTGVC  
ATSVRKFNAAAASLENTTVLCISKDLPFALGRFCSAEGIENVTPVSAFRSTFGEDNGIVL  
EGSPLKGLLARSVIVVDENGKVAYTQLVDEIFTEPDYDAALAGLN

>RXN00901 TRANSLATE of: rxn00901.seq check: 5066 from: 1 to: 414  
MQKKQQLSTALIMGLALLSASSALATDMYLPAMPGIAEDLGTTAPMVQLTLSSFMAGMAI  
GQLIIGPLSDQLGRKGLLVAGAVAAALVASVVCALAPSI SVLVIAARLVQGLGGGACVVLRA  
RSCQTLNADKRLRTPPLHC

>RXN00932 TRANSLATE of: rxn00932.seq check: 6704 from: 1 to: 474  
MTPQKLHRFAALLEMGWTLLIIGMILKYSGVTDVAVTPIAGGIHGFGLCFAAITITVWI  
NNKWTFFPQGIAGLIVSVIPWAALPFALWADKKGLVAGGWRFSDPSEKPHTFFDKILAQLV  
RHPIRSILILLVIIAVVFSILLAMGPPYDPAIANTVD

>RXN00937 TRANSLATE of: rxn00937.seq check: 2481 from: 1 to: 372  
MATIDVTEETFESTVTGDGIVLVDAWASWCGPCRQFAPTYEKVSEHTDATFAKLDTEAN  
QGLAAALQIQSIPTLMVFRDGMVYREAGTMPAPALDDLNVQVKALDMDDVRRQVAEQQG  
SAEA

>RXN01010 TRANSLATE of: rxn01010.seq check: 367 from: 1 to: 1119  
MKKLQMPAILVGGFVGPFQALSVVLPEFADTFDISVSQAALMTAYLLPFATMMLFSG  
RITRKIHPHKVQAAIVITLPLALLLVTPSWGFLMAAYATIGIANAFTPVLQIMLREL  
VPPRSLGKALGTYAAMQSLGMLSAPLIAGVSSVSWRLTFLVTAASLFI LVARLPVVPP  
PSASKQNVSGKVQWGPTIIHMSVSGFVVGIGIIGIGFMTSLHVGEQFGLDAAARGLVVMCG  
GLAAFFASRKIGDLADKFGVRAVLIVSAVIGTIALALLPIAPWIIIVAVLWAFVAAAQG  
IQATVNLAVIGSPGGSSLLSTVQAFRFFGSAAAPVTFLPIYMGIGSGAFWVSAVALFFVA  
IAQWLNPPQVERG

>RXN01091 TRANSLATE of: rxn01091.seq check: 7053 from: 1 to: 564  
MVPNTVLIHDEADLATQIQRLHIMACLRDPVSGCPWDIEQTFASIAPHTIEEGYEVAD  
AIAQEDWPELRGELGDLFQTVFHAQMAAREAGHFALVDVVKAI SDKMVLRRHPHVFGAQS  
AKSADQQVEDWEVIKAPERAGKAQKGVLDGVALGLPALMRATKLQNNAAARVGFDPDQIG  
VLGKVTEE

>RXN01102 TRANSLATE of: rxn01102.seq check: 7618 from: 1 to: 1245  
VAVLVAVAAAFGSWSLLLPVPLAVLNNGGSSAVAGATTGIFMAATVITQIFTAALRKI  
GYTPVMAFAAFMLGVPAIGYIFSVEPIPVLVVSALRGIGFGALTVAESALVAELVPVRFL











>RXN03022 TRANSLATE of: rxn03022.seq check: 1371 from: 1 to: 447  
 VIITAGILVATATALLMITAVSESTYIVISLAGFSLYGLGLGLFATPVTDTALGTLPKDR  
 TGAGAGVFKMSSSLGAALGIAISTSVFLALRDGTSINSDVALAGTVSLGINVVFAATATI  
 TAAVLIPKAAGKVSQTSITLPEPAIAVKI

>RXN03038 TRANSLATE of: rxn03038.seq check: 812 from: 1 to: 726  
 MHSKEELTVRKGISRVLSVAVASSIGFGTVLTGTGIAAAQDSAFDYGMDPNMNYNPIDDI  
 KDRPEGLSNLPYFGSKLTSWGSSYATASSGVVTSALPQYTDPRYPLGKDDLKATIDMEP  
 EVLARLERFVGVGDGRIRQINAYSPSMGRITPLVWVVPEDNTVPGPTVYALGGGDDGGQGG  
 QNWVTRTDLEELTSDNNINLIMPMLGSFSFYSDWARESQSMGCAQQWETLLMHHELPEPLV  
 AA

>RXN03039 TRANSLATE of: rxn03039.seq check: 1469 from: 1 to: 630  
 ALPQYTDPRYPLGKDDLKATIDMEPEALARLERFVGVGDGRIRQINAYSPSMGRITPLV  
 WVVPEDNTVPGPTVYALGGGDDGGQGGQNWVTRTDLELTSENNINLIMPMLGSFSFYADW  
 AGESESMGGAQQWETFLMHHELPEPLEAAIGADGQRSIVGMSGGSVLNFATHDPNFYSS  
 VGSFSGCAETNSWMGRWRHSHCLQRQCR

>RXN03040 TRANSLATE of: rxn03040.seq check: 6898 from: 1 to: 309  
 MSXGDNAPIDEDAFKNRVLVGFIEAMSNTCTHNLKAATDQMGIDNINYDFRPTGTHAWD  
 YWNEALHRFFPLMMQGFGLDGGPIPIYNPNVTSSESSXRTVF

>RXN03042 TRANSLATE of: rxn03042.seq check: 1569 from: 1 to: 606  
 LVLAFLVLLLVFRSIWVPLIAALGFGLSVLATFGATVAIFQEGAFGIIDDPQPLLSFLPI  
 MLIGLVFGLAMDYQIFLVTRMREGFTKGKTAGNATSNFGKHGARVVTAALIMVSVFAAF  
 IAQDMAFIKTMGFALAVAVFFDAFVVRMMIIPATMFLDDKAWWLPKWLDKILPNVDVEG  
 EGLSELHEARTEELKENVGVA

>RXN03051 TRANSLATE of: rxn03051.seq check: 1794 from: 1 to: 735  
 MRSDVIELPEGVSKEKADQLEVAEARLNEGARMATTGCEVMWPTGFSVCGRILDYRQV  
 GGQLSWLGPPKSNELTNPDGVGKRSEFFGGAIYWHPTDGAYAVTLDGLRQWGTLNWESGP  
 LGYPTSGPMDTNYPLTQRQTFQGGDNYYNPLTGGAVWGDIKQRYEELGGSNHAIGIPITN  
 ELPSGTEYFYNNFSNGTISWRNDRQTRFMYLATQRVWDALGRETGRLGFPEADETPEVSG  
 LFHVA

>RXN03054 TRANSLATE of: rxn03054.seq check: 8742 from: 1 to: 1581  
 MKLFSKAAGVIAAALLVAGGIAPVAQQQASQVVTPEDDQDAYVQQFHHEGNTPPVVDGVGG  
 YTEQEIIEAIEAIRQAQESGAPNEELIPGEMWSDKVELPVTIDKAAADEAEIAIAQQQSQ  
 PQTRGLAAAAACQTFWPSPHQVCGAILERYIQQAQFGWMLFPSEGQTLNPDGQGYRQRF  
 MNGFVYWHPTTGAHAVNNYSAQVWERNWGESGWMGYPTGGEVPVNGSNPIDGELSGWVQT  
 FQGGRVYRSPVLIDGQVASINGLILDKWLELGGPDSDLGFPIADEAVTADGVGRFSVFQN  
 GVVYWHPPQGAHPILGNIYSIWREEGAESGEFGYPIGDPEKYTENMANQVFEKGELANL  
 YPNPLEAFIEFLPFANLEEAIEYFENGLSNSRVEANSLNAKKDSIQCSQSANIHVRTKS  
 DGVGIRVPKIGFKARMDCDLPGTVSDVVGWYIYDYWGRWAQAAQAQQFFGNRNSVVQT  
 NLEAGCSGEKNTLFWGTSYFQVTEYEGQPYFGQSATNYAYLPCTIDRS

>RXN03064 TRANSLATE of: rxn03064.seq check: 5850 from: 1 to: 1332  
 MMLNETTFLAVALPSIMADFDIEANTAQWLLTGFMILTMAVVLTPATGWMLERFTTRSVFIFA  
 TVVFLIGTVTAALSPTFAIMLAARVAQAIGTAVIMPLMTVAMTVVPPERRGAVMGLIAV  
 VMAVGPAALGPSVAGFVLSLSSWHAIFWVMVPLVFVASLIGTLRLTNVSEPKTPLDVISF  
 LISAVAFGLLVYALSSIGIILEGDRSALVVLAVGIIALVVFVWRQIAMGKQDKALLDLRP  
 LAIREYTIPLVLLTLFGALLGVMNTLPLYLQGSIMVTALVAGLVLLPGGLLEGVLSPFV  
 GRIYDRHGPRGLVIGGMSLVVISLALSTVDEFANVWFIIGVHIVFSIGLALLFTPLMTV  
 ALASVPDNMYGHGSAILNTLQQLAGAAGTAVMIAVYSTVSNNALIDGATQQTALADGANS  
 AFFASACVAVFALIVGFFVKRPAR

>RXN03075 TRANSLATE of: rxn03075.seq check: 8649 from: 1 to: 726

VAKFLYKLGSTAYQKKWPFLAVWLVLIGITTLAGLYAKPTSSSFSIPGLDSVTTMEKMQ  
ERFPGSDDATSAPTGSVVIQAPGKTLTDPEVGAEVNQMLDEV RATGVLKDADSVVDPVL  
AAQGVAAQMTPALEAQGVPAEKIAADIESISPLSADETTGIIISMTFDADSAMDISAEDRE  
KVTNILDYDDGDLTVVYNGNVFGAAATSLDMTSELIGLLVAAVVLIVTFGSFIAAGMPL  
IS

>RXN03119 TRANSLATE of: rxn03119.seq check: 3185 from: 1 to: 132  
MAVYELPELDYAYDALEPHIVAEIMELDQSKDHATYVAGANAAL

>RXN03120 TRANSLATE of: rxn03120.seq check: 209 from: 1 to: 126  
MLDMWEHAFYLQYMNVKADYVKAVWNVFNWDDARARFAAASK

>RXN03123 TRANSLATE of: rxn03123.seq check: 5888 from: 1 to: 438  
VGDALRGRGKPEVMRYPGIPFAIPDPAPRGFLFLGDLTSYPAICSILETL DGEIPATAYL  
IAHDPLDYTFDFPQGEHITAQWISNEQSFIDHIADTDYTDFTWIGAESSETRA AKKHLQ  
THAGMPKTHMNAQQGYWNKGRAMGKSN

>RXN03124 TRANSLATE of: rxn03124.seq check: 3878 from: 1 to: 960  
MTPTLASMIGLAVGIDYALFIVSRFRNELISQTGANDLEPKELAERLR TMPLAARAHAMG  
MAVGTAGSAVVFA GTTVLIALVALSIINIPFLTVMAIAAAITVAIAVLVALSFLPALLGL  
LGTRIFAARVPGPKVPDPPEDEKPTMGLKWVRLVRKMPVAYLLVG VVLLGAIAIPATNMRL  
AMPTDGTSTLGTAPRTGYDMTADAFGPGRNAPMIALIDATDVPEEERPLVFGQAVEQFLN  
TDGVKNAQITQTTFENFDTAQILLPQNL MRSMSAPLRLSQLFVQMLRPSLMT PARRMALLA  
SPQFTMTSLLASATSWFLT F

>RXN03125 TRANSLATE of: rxn03125.seq check: 4701 from: 1 to: 171  
LVLAFLVLLL VFRSIWVPLIAALGFGLSVLATFGATVAIFQEGAFGIIDDPQ PLLCF

>RXN03142 TRANSLATE of: rxn03142.seq check: 9643 from: 1 to: 1143  
VFILGWLVLNTQYLSFYFLITVMALYAMESFAVSEAAVGFAASSFVIGATVARVFAGWTS  
DRFGKKQILLIFVGLEAVASLFYIPAASLPALVAVRFVHGFSYSLASTAVMALVQSVIPA  
SRRAEGTG YFALGSTLATAFGPAIALFVIDDFNYNTLFWITTATSVFGLILT VLIRKPEF  
IKNAEHGRVKPVWSIKTVVHPSVMLIGFFMLAVGLAYAGVITFLNGFAQDTGLTAGAGLF  
FIAYAVAMLVMRFFLGRIQDKHGDNPVIYFGLISFALALGLMALATEDWHIVLAGALTGL  
GYGTIMPAAQAI AVDSVPSTQVGS GISTLFLFTDIGIGLGPILLGGLVAATGYNV MYAAL  
AAVIVVAGVLYLVALGRKASH

>RXN03151 TRANSLATE of: rxn03151.seq check: 6293 from: 1 to: 486  
VLSHIIDVLADPIDGTPLVGAEDFSRLVSESGHSYDVARQGYVTL AGGAGLRYSGDDAQM  
IADRETFLSGGHFAPFVEAVTEHVQDVVDQAGLSDDAQPVVCEIGAGTGY YLSHTLDSVA  
GSRGIGIDVSVHA AKRLAKCHPRVGAVIANAWARLP IADNSS

RXS00568 translate of: RXS00568.seq check: 2511 from: 1 to: 1347  
VKSSVEKLS DTRSKITVEVPFSELKPEIDQAYAALAQVQIPGFRKGKAPRQLIDARFGRGAVLEQVVN  
DMLPNRYAQAI EAEGIKAIGQPNVEVT KIEDNELVEFVAEVDVRPEFELPKFEDITVEVPAIKADEEAI  
EALETLRARFSTLKDHNHKLKKGEFVTINITASIDGEKIEEATTEGLSYEIGSDDLIDGLDKALIGAK  
KDETVFTSELANGEHKGKEAQISVEITATKQRELPELDDEFAQLASEFDTIEELRESTVSDVEAKQKN  
EQAAAI RDEVLAALGEADFALPQSIVDEQAHSQ LHQLLGELAHDDAALNSLLEAQGTTREEFDKKNVE  
DAEKAVRTQLFLDTLSEVEEPEVSQQELTDHILFTAQSYGMDPNQFIGQLQQSGQIANLFS DVRRGKAL  
AQAI CRVNVKDSEGNEIDPKKEYFGEEVAETES EA

RXS01027 translate of: RXS01027.seq check: 2562 from: 1 to: 1008

09603208-06300

